



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSING



STEVEN E. CHESTER  
DIRECTOR

February 21, 2003

CERTIFIED MAIL

Mr. Paul Durkin  
Cookson Electronics  
225 Foxborough Boulevard, Suite 150  
Foxborough, Massachusetts 02035

Mr. Tim Burgess  
Manager of Regulatory Affairs  
Enthone Incorporated  
P.O. Box 1900  
New Haven, Connecticut 06508

Dear Messrs. Durkin and Burgess:

SUBJECT: Polychlorinated Biphenyls (PCBs) Cleanup Work Plan  
Enthone Incorporated (Enthone), Warren, Michigan  
MID 056 717 747

RECEIVED  
FEB 28 2003  
Corrective Action Section  
Waste Management Branch  
Waste, Pesticides and Toxics Division  
U.S. EPA - Region 5

The Michigan Department of Environmental Quality (MDEQ), Waste and Hazardous Materials Division, has completed its review of the March 27, 2002 PCB Cleanup Work Plan submitted by Conestoga-Rovers & Associates (CRA) on behalf of Cookson Electronics for Enthone. The proposed PCB Cleanup Work Plan requires coordinated reviews by the United States Environmental Protection Agency, Region 5 (EPA), and the MDEQ to remediate PCB waste regulated under the federal Toxic Substances Control Act (TSCA) and the federal Resource Conservation and Recovery Act (RCRA). The MDEQ comments contained herein are specific to the requirements for the non-TSCA regulated PCB waste identified by Enthone in the New Low Bay, Aboveground Storage Tank Area, former Retention Pond Area, and Process Sewer System. Because Michigan is authorized by the EPA to administer the state's hazardous waste management program in lieu of the federal RCRA hazardous waste management program, the PCB Work Plan was reviewed for compliance with Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), and its administrative rules, Michigan Administrative Code R 299.9101 *et seq.*, and the environmental protection standards of Part 201, Environmental Remediation, of Act 451, as adopted by reference in Part 111.

According to Section 761.3 of Title 40 of the Code of Federal Regulations (CFR), Part 761, entitled POLYCHLORINATED BIPHENYLS (PCBs) MANUFACTURING, PROCESSING, DISTRIBUTION IN COMMERCE, AND USE PROHIBITIONS, PCB remediation waste is defined in part as, "...Materials disposed of prior to April 18, 1978,

that are currently at concentrations  $\geq 50$  ppm [parts per million] PCBs, regardless of the concentration of the original spill...." Therefore, all PCBs left in place following excavation activities that meet the definition of PCB remediation waste are subject to the federal regulations and policies that implement the TSCA. Pursuant to Part 201, Section 324.20120a(12), the MDEQ may not require response activity in addition to that which is subject to and complies with the TSCA. However, PCBs disposed of prior to April 18, 1978, and are currently less than 50 ppm, are not subject to the TSCA regulations. These wastes are considered non-TSCA regulated PCB waste, and therefore, pursuant to Part 111, the generic industrial cleanup criteria of 16 ppm for PCBs in soil are applicable as specified in Part 201.

Enthone is subject to the RCRA corrective action, and PCBs are required to be addressed as a part of Enthone's ongoing corrective action obligations. The MDEQ is recognizing the proposed PCB cleanup work as an interim response until such time as all proposed and required remedial measures are implemented and all federal and state administrative requirements are fulfilled. The MDEQ understands that it is Enthone's intent to establish that, upon completion of remedial measures identified in the PCB Cleanup Work Plan, the interim response activity will meet the definition of "complete" as defined in Part 201, R 299.5101(e)(ii), for the PCB soil contamination in the New Low Bay, Aboveground Storage Tank Area, the former Retention Pond Area, and the Process Sewer System. An MDEQ determination of "complete" for the interim response is contingent upon the MDEQ approval of a final PCB Cleanup Report that complies with the requirements of Part 201, R 299.5526(7).

The MDEQ finds the PCB Cleanup Work Plan acceptable subject to the following conditions:

1. Enthone must obtain a TSCA approval from the EPA for regulated PCB remediation waste materials remaining in-place at the New Low Bay, Aboveground Storage Tank Area, former Retention Pond Area, and Process Sewer System.

This condition is necessary to ensure compliance with all applicable requirements of state and federal environmental law, pursuant to Part 201, Section 324.20118(2)(b), for all response activities. The MDEQ acknowledges that Enthone received TSCA approval of the PCB Cleanup Work Plan and Draft Due Care Plan on December 12, 2002.

2. All interim response activities must meet the Part 201 requirements for an MDEQ-approved remedial action plan (RAP) if the interim response activities are to be considered final remedies, pursuant to Part 201, Section 324.20120b.

This condition is necessary to clarify that final remedies must be incorporated into an MDEQ-approved RAP to satisfy corrective action obligations.

3. Following the completion of cleanup activities, a final PCB Cleanup Report must be submitted to the MDEQ. In addition to the summary items identified in Section 3.1 of the PCB Cleanup Work Plan, a map depicting the areas with remaining PCB contamination, depth of contamination, and PCB concentrations must be included in the final PCB Cleanup Report. The final PCB Cleanup Report must also be signed and certified according to the provisions of 40 CFR, Part 270.11(d)(1).

This condition is to ensure the identification of areas requiring appropriate land or resource use restrictions. Land or resource use restrictions must ensure the effectiveness and integrity of any containment, exposure barrier, or other necessary restrictions and shall be described in a restrictive covenant if the interim response is to be considered a final remedy, pursuant to Part 201, Section 324.20120b(4).

4. To accomplish the remediation goals outlined in the PCB Cleanup Work Plan, a health and safety plan to address any potential exposure in the areas where PCB impacted soils will remain after excavation must be developed and submitted to the MDEQ concurrently with the PCB Cleanup Report. This health and safety plan must be specific to the PCB impacted areas identified in the PCB Cleanup Work Plan and must address health and safety requirements for future construction, maintenance of existing controls, and implementation of any required land or resource use restrictions via a restrictive covenant. As stated in the PCB Cleanup Work Plan, Enthone must demonstrate how the contents of the health and safety plan will be binding on future owners, assigns, or lessees. The health and safety plan must also reflect the recommendations generated by the former Waste Management Division, Remediation Advisory Team (RAT), on August 28, 2002, and transmitted via fax to CRA shortly thereafter (attached).

This condition is to assist the MDEQ in determining whether a health and safety plan is adequate to ensure the effectiveness and integrity of the selected final remedy. The MDEQ recognizes that a draft document entitled "Due Care Plan," dated July 23, 2002, was developed by CRA to address the above-mentioned health and safety requirements and restrictions. Although it is recognized by the MDEQ that the contents of the draft Due Care Plan may provide the necessary information required to meet the provisions of Part 201, Section 324.20107a, the draft Due Care Plan will be serving a separate and additional purpose as the primary health and safety protocol to address the PCB contamination in the New Low Bay, Aboveground Storage Tank Area, former Retention Pond Area, and Process Sewer System under corrective action. The MDEQ has determined that the contents of the draft version of the Due Care Plan may not fulfill the requirements to obtain a "complete" status as defined in Part 201, R 299.5101(e)(ii), for PCBs in soil in the referenced areas. A modified version of the Due Care Plan may serve as a health and safety plan if a final submittal

meets all statutory and regulatory corrective action requirements. The MDEQ understands that the EPA has approved the **draft** version of the Due Care Plan as part of their December 12, 2002 approval of the PCB Cleanup Work Plan as satisfying Enthone's TSCA requirements and obligations.

5. The PCB Cleanup Work Plan claims that Enthone has verified through a risk assessment presented in the February 16, 2002 PCB Investigation Summary and Cleanup Plan that remaining PCBs will not pose unacceptable human health or environmental risks. The risk assessment was deemed by the MDEQ to be inadequate to make such a determination at this time. Therefore, the MDEQ disagrees with this claim made in the PCB Cleanup Work Plan. However, a risk assessment is not necessary in this circumstance to demonstrate that the remaining PCBs will not pose a risk to human health or the environment because the exposure pathway is incomplete. Upon conclusion of the soil excavation and backfilling activities proposed in the PCB Cleanup Work Plan, remaining PCB-impacted areas will be capped with concrete or asphalt. Human direct contact exposure with PCB-impacted soil is eliminated as long as the containment and exposure barriers are maintained. Land or resource use restrictions to ensure maintenance of the necessary exposure barriers must be described in a restrictive covenant to ensure the effectiveness and integrity of the remedy pursuant to Part 201, Section 324.20120b(4).

Therefore, the acceptance of the proposed remedy is contingent upon the maintenance and preservation of the containment and exposure barriers until such time as the MDEQ determines that the residual PCBs no longer present an unacceptable risk to the public health, safety, or welfare or the environment. Enthone has the option to supplement the current risk assessment proposal with additional information for MDEQ consideration at any time.

These statements are necessary to clarify the MDEQ's intentions to proceed with review of the PCB Cleanup Work Plan and subsequent PCB related submittals without consideration of the risk assessment as proposed in the February 16, 2002 PCB Investigation Summary and Cleanup Plan. For additional information regarding the risk assessment deficiencies, please contact Ms. Amy Merricle at 517-241-3584.

6. The MDEQ has not evaluated the June 11, 2002 submittal regarding the additional information for the Supplemental RCRA Facility Investigation for the New Low Bay Investigation.

This statement is necessary to clarify the corrective action status of the New Low Bay. The acceptance of the PCB Cleanup Work Plan does not release Enthone from further investigation and possible remediation of contaminants other than

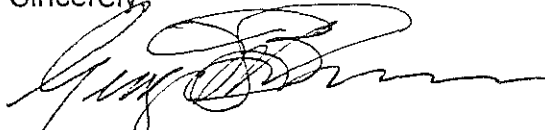
PCBs in soils and groundwater in the area of the New Low Bay until such time as the MDEQ has fully evaluated and approved the June 11, 2002 submittal.

7. The MDEQ has not received adequate facility investigation data to make a final determination on the completion of site-wide corrective action for the Enthone facility.

This statement is necessary to clarify the corrective action status for all areas of Enthone that are subject to corrective action. The acceptance of the PCB Cleanup Work Plan for the New Low Bay, Aboveground Storage Tank Area, former Retention Pond Area, and Process Sewer System does not constitute a release from any corrective action responsibilities Enthone may have under Part 111 for other contaminants in those areas and/or for other areas at the facility. Furthermore, PCBs shall be considered a contaminant of concern site-wide and must be added to the target analyte list for any corrective action investigations, unless otherwise approved by the MDEQ.

If you have any questions, please contact Hazardous Waste and Radiological Protection Section staff, Ms. Kimberly M. Tyson at 517-373-2487 or Ms. Merricle at 517-241-3584, or you may contact me.

Sincerely,



George W. Bruchmann, Chief  
Waste and Hazardous Materials Division  
517-373-9523

Attachment

cc/att: Mr. Mark Jacobs, Dykema Gossett  
Mr. James Reid, CRA  
Ms. Priscilla Fonseca, EPA, Region 5  
Mr. Hak Cho, EPA, Region 5  
Mr. Steve Buda, MDEQ  
Ms. Delores Montgomery, MDEQ  
Ms. Amy Merricle, MDEQ  
Mr. Tim Sonnenberg, MDEQ – Southeast Michigan  
Mr. Clay Spencer, MDEQ  
Mr. Ron Stone, MDEQ  
Ms. Kimberly M. Tyson, MDEQ  
Corrective Action File



# Waste Management Division Remediation Advisory Team - Single Entry Report

Site: Enthone, Inc.

District: Southeast Michigan

County: Macomb

Review Type: Intermediate Review

Clean-up Type: 201 Limited Industrial

Program: Part 111 of 1994 P.A. 451

Meeting Date 8/28/2002

RA TEAM: Becky Kocsis, Pat Brennan, Wes Sherman, De Montgomery, Deb Taylor, Ken Burda, Jim Janiczek, Jon Russel, Amy Merricle, Ron Stone, Kimberly Tyson, Clay Spencer

**Project Description:** The closure of two interim status hazardous waste container storage areas and an interim status hazardous waste tank storage area, licensed to operate under RCRA, were completed previously. TSCA-regulated PCB remediation waste was found on-site during the facility-impemented investigation. Enthone is seeking U.S. EPA and MDEQ approval for an interim measure to remove all accessible PCB remediation waste as part of on-going RCRA corrective action.

- Notes:**
1. The facility is under-going corrective action and is in the RFI phase.
  2. Coordination with U.S. EPA, TSCA program is required due to the high levels of PCB's found on site.
  3. PCB's were released prior to 1978, however, some concentrations are greater than 50 ppm.
  4. Part 201 states that the department may not require response activities for PCB's above and beyond that which is subject to and complies with TSCA. It has therefore been determined that any areas that have PCB's greater than 50 ppm (defined as PCB remediation waste under TSCA) are subject to TSCA.
  5. Any PCBs left in place that are above the 20 ppm (201 criteria) and below the 50 ppm, will be paved and a deed restriction will be in place.
  7. This will be considered an interim response only.
  8. The restrictive covenant is necessary. The restrictive covenant states that they will notify the MDEQ if they are working in areas of concern.
  9. Remedy will be dependant upon a health and safety plan (submitted document titled "Due Care Plan") to control worker exposure for any work in the impacted area following cleanup activities.
  10. The lead agency for corrective action is not clear at this point. MDEQ will consider conducting corrective action under a CA Order at a later date. This should be identified in the approval letter as a potential answer to the expired HSWA permit.

- Recommendations:**
1. Language should be included in the restrictive covenant (RC), that any subsequent owner is subject to the provisions and restrictions identified in the Due Care Plan. The Due Care Plan will go with the owner.
  2. Limited interim responses must meet all Part 201 RAP requirements.
  3. The Due Care Plan should include a more detailed operation and maintenance plan for containment barriers and markers, or a separate document must be provided, pursuant to Part 201, Section 20120b(3).
  4. As part of the restrictive covenant or MDEQ approval memo, a note should be added that additional contaminants and RCRA issues have not been addressed by the MDEQ, and/or additional work as part of corrective action may be necessary.
  5. Although mentioned in the Due Care Plan, the final approval memo must specify that PCBs are a contaminant of concern site-wide, and must be added to the target analyte list for any subsequent investigations.
  6. Project staff must determine significance and identity of "Hoover Properties, L.L.C" as noted in proposed RC language.
  7. References to plans in the RC must be expanded to include all plans to be considered, the company or agency that prepared the plan, dates, and exact title of the plan.
  8. The reference to the PCB Cleanup Plan in the RC must clearly state that the risk assessment is not included as part of the approval, or the PCB Cleanup Plan must be revised (removal of risk assessment) prior to implementation of the RC.
  9. A map must be included as part of the RC clearly identifying structures serving as containment over PCB impacted areas (above 20 ppm). Language should be added to the RC stating that the map must be updated if changes to the structures or their locations occur.
  9. Although notification for work to be done in the PCB impacted area is acceptable as described in paragraph 7 of the RC, a report following any work must be submitted to the MDEQ to ensure that appropriate restrictions and/or updates to the Due Care Plan and RC have occurred.
  9. Paragraph 5 of the RC must have language added to allow for the MDEQ to enter the property for the

on-going investigation for other parameters subject to RCRA corrective action and Part 201.

10. Paragraph 6a of the RC must be revised to include language for "compliance with 29 CFR Section 1910," and in addition, include the following, "the owner must comply with all worker health and safety standards and other regulatory requirements that are applicable at the time any alterations are undertaken, if more stringent than the performance standard specified in the approval or Due Care Plan."

11. The facility should consider the use of a geo-membrane or other material to serve as an indicator to workers conducting excavation activities that they have reached a depth at which PCBs are above Part 201 industrial direct contact criteria for PCBs.

12. Consider identifying requirements to the facility via a flow diagram.

Chair's Signature:

Date Signed:

